

PATENT APPLICATION 48930-01703

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:	Richard L. Bonkowski, et al.)
Application No.:	10/706,142) Art Unit
Filed:	November 12, 2003)
For:	METHODS FOR FORMING SECURITY ARTICLES HAVING DIFFRACTIVE SURFACES AND COLOR SHIFTING BACKGROUNDS)))
Examiner:	Unknown)))

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

In compliance with the duty to disclose information material to patentability pursuant to 37 C.F.R. 1.56, it is respectfully requested that this Information Disclosure Statement be entered and the documents listed on attached Form PTO/SB/08A and 08B be considered by the Examiner and made of record. Copies of all documents are not enclosed as they can be found in the parent applications. In accordance with 37 C.F.R. § 1.97(g) and (h), filing of this Information Disclosure Statement is not to be construed as a representation that a search has been made or an admission that the information cited herein is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b). Further, no representation is made by Applicants herein that no other possible material information as defined in 37 C.F.R. § 1.56(b) exists.

To the extent any additional fees are due in connection with this communication, Applicants request that they be withdrawn from Deposit Account No. 082665.

DATED this 2004 day of February, 2004.

Respectfully submitted,

David O. Seeley, Reg. No. 30,148

Customer No. 34013

Holme Roberts & Owen LLP

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Application Number 10/706,142

Filing Date November 12, 2003

First Named Inventor Richard L. Bonkowski

Art Unit 1772

Examiner Name Unknown

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 of
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 Attorney Docket Number
 48930-01703

				U.S. PATEN	NT DOCUMENTS	
Examiner Initials*	Cite No.1	<u> </u>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	 		ımber-Kind Code ^{2(If known)}	10/10/1	Calaratan et al	
	1	US-	3,011,383	12/1961	Sylvester, et al.	
	2	US-	4,756,771	07/12/88	Brodalla, et al.	
	3	US-	4,779,898	10/25/88	Berning, et al.	
	4	US-	5,002,312	3/26/91	Phillips, et al.	
	5	US-	5,009,486	04/23/91	Dobrowolski, et al.	
	6	US-	5,084,351	01/28/92	Phillips, et al.	
	7	US-	5,171,363	12/15/92	Phillips, et al.	
	8	US-	5,364,467	11/15/94	Schmid, et al.	
	9	US-	5,648,165	07/15/97	Phillips, et al.	
	10	US-	5,650,248	07/22/97	Miekka, et al.	
	11	US-	5,763,086	06/09/98	Schmid, et al.	
	12	US-	5,858,078	01/12/99	Andes, et al.	
	13	US-	5,912,767	06/15/99	Lee	
	14	US-	5,989,626	11/23/99	Coombs, et al.	
	15	US-	6,013,370	01/11/00	Coulter, et al.	
	16	US-	6,045,230	04/04/00	Dreyer, et al.	
	17	US-	6,068,691	05/30/00	Miekka, et al.	
	18	US-	6,112,388	09/05/00	Kimoto, et al.	
	19	US-	6,168,100 B1	01/02/01	Kato, et al.	
	20	US	6,241,858 B1	06/05/01	Phillips, et al.	

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		Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)	MM-DD-YYYY		Or Relevant Figures Appear
	21	DE 43 43 387	06/25/95		
	22	EP 0 756 945	02/05/97		
	23	WO 00/08596	02/17/00		
	24	WO 98/12583	03/26/98		

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Art Unit 1772

Examiner Name Unknown

Attorney Docket Number 48930-01703

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	0.5		umber-Kind Code ^{2(If known)}	01/02/70	T C :	Tigures Appear
	25	US-	4,066,280	01/03/78	LaCapria	
	26	US-	4,126,373	11/21/78	Moraw	
	27	US-	4,155,627	05/22/79	Gale, et al.	
	28	US-	4,168,983	09/25/79	Vittands, et al.	
	29	US-	4,930,866	06/05/90	Berning, et al.	
	30	US-	5,009,486	04/23/91	Dobrowolski, et al.	
	31	US-	5,106,125	04/21/92	Antes	
	32	US-	5,214,530	05/25/93	Coombs, et al.	
	33	US-	5,254,390	10/1993	Shih-Lai Lu	
	34	US-	5,339,737	08/23/94	Lewis, et al.	
	35	us	5,464,710	11/07/95	Yang	
	36	US-	5,549,953	08/1996	Li Li	
	37	US-	5,591,527	01/1997	Shih-Lai Lu	
	38	US-	5,700,550	12/23/97	Uyama, et al.	
	39	US-	5,856,048	01/1999	Tahara, et al.	
	40	US-	6,031,457	02/29/00	Bonkowski, et al.	
	41	US-	6,150,022	11/2000	Coulter, et al.	
	42	US-	6,157,489	12/05/00	Bradley, Jr., et al.	
	43	US-	6,242,510 B1	06/05/01	Killey	
	44	US-	6,243,204 B1	06/05/01	Bradley, Jr., et al.	

		FOREIGN PA	ATENT DOCU	MENTS		
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	45	US-	Re.35,512	05/20/97	Nowak, et al.	
	46	US-	4,168,983	09/25/79	Vittands, et al.	
	47	US-	4,434,010	02/28/84	Ash	
	48	US-	4,705,300	11/10/87	Berning, et al.	
	49	US-	4,705,356	11/10/87	Berning, et al.	
	50	US-	4,721,217	01/26/88	Phillips, et al.	
	51	US-	4,838,648	06/13/89	Phillips, et al.	
	52	US-	5,059,245	10/22/91	Phillips, et al.	
	53	US-	5,084,351	01/28/92	Phillips, et al.	
	54	US-	5,135,812	08/04/92	Phillips, et al.	
	55	US	5,171,363	12/15/92	Phillips, et al.	
	56	US-	5,278,590	01/11/94	Phillips, et al.	
	57	US-	5,279,657	01/18/94	Phillips, et al.	
	58	US-	5,549,774	08/27/96	Miekka, et al.	
	59	US-	5,571,624	11/05/96	Phillips, et al.	
	60	US-	5,624,076	04/29/97	Miekka, et al.	
	61	US-	5,629,068	05/13/97	Miekka, et al.	
	62	US-	5,672,410	09/30/97	Miekka, et al.	
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		FOREIGN PA	ATENT DOCU			
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		NON PATENT LITERATURE DOCUMENTS			
Examiner nitials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			
	63	John M. McKiernan, et al., "Luminescence and Laser Action of Coumarin Dyes			
		Doped in Silicate and Aluminosilicate Glasses Prepared by the Sol-Gel			
		Technique," Journal of Inorganic and Organometallic Polymers, Vol. 1, No. 1,			
		1991, pages 87-103.			
	64	Jeffery I. Zink, et al., "Optical Probes and Properties of Aluminosilicate Glasses			
		Prepared By The Sol-Gel Method," Polym. Mater. Sci. Eng., pages 204-208			
		(1989).			
	65	Don W. Tomkins, Kurz Hastings, "Transparent Overlays for Security Printing and			
		Plastic ID Cards," Pages 1-8, November, 1997.			
	66	The Mearl Corporation brochure for "Mearl Iridescent Film," Peekskill, NY.			
	67	J.A. Dobrowolski; K.M. Baird; P.D. Carman; and A. Waldorf, "Optical			
		Interference Coatings for Inhibiting of Counterfeiting," Optica Acta, 1973, Vol.			
		20, No. 12, 925-937.			
	68	The R.D. Mathis Company Manual for "Thin Film Evaporation Source			
		Reference," Long Beach, CA.			
	69	Minolta Manual for "Precise Color Communication, Color Control From Feeling			
		to Instrumentation," Pages 18, 20, 22, 23, 46, 47, 48 and 49.			
	70	Frans Defilet, LGZ Landis & Gyr Zug Corporation, "Kinegrams 'Optical Variable			
		Devices' (OVD's) For Banknotes, Security Documents and Plastic Cards," San			
		Diego, April 1-3, 1987			
	71	S.P. McGrew, "Hologram Counterfeiting: Problems and Solutions," SPIE, Volume			
		1210 Optical Security and Anticounterfeiting Systems, 1990, Pages 66-76.			
	72	Rudolf L. van Renesse, "Security Design of Valuable Documents and Products,"			
		SPIE, Vol. 2659, June 1996, Pages 10-20.			
	73	Steve McGrew, "Countermeasures Against Hologram Counterfeiting," Internet			
	<u> </u>	site www.iea.com/nli/publications/countermeasures.htm, January 6, 2000.			
	74	Roger W. Phillips, "Optically Variable Films, Pigments, and Inks," SPIE Vol.			
		1323, Optical Thin Films III: New Developments, 1990, Pages 98-109.			
	75	Roger W. Phillips, and Anton F. Bleikolm, "Optical Coatings for Document			
	<u> </u>	Security," Applied Optics, Vol. 35, No. 28, October 1, 1996, Pages 5529-5534.			
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Initials*	No.1	journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	
	76	J.A. Dobrowolski; F.C. Ho; and A. Waldorf, 'Research on Thin Film	
		Anticounterfeiting Coatings at the National Research Council of Canada," Applied	
		Optics, Vol. 28, No. 15, July 15, 1989, pages 2702-2717.	
	77	J. Rolfe, "Optically Variable Devices for Use on Bank Notes, "SPIE, Vol. 1210	
		Optical Security and Anticounterfeiting Systems, pages 14-19, 1990.	
78	78	OVD Kinegram Cor, "OVD Kinegram Management of Light to Provide Security,"	
	'	Internet site www.kiknegram.com/xhome/home.html, December 17, 1999.	
	79	I.M. Boswarva, et al., "Roll Coater System for the Production of Optically	
	'	Variable Devices (OVD's) for Security Applications," Proceedings, 33 rd Annual	
1		Technical Conference, Society of Vacuum Coaters, pages 103-109 (1990).	
	-	reclinical conference, Society of Vacuum Coulers, pages 103 103 (1330).	
	 		
	 		
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CERTIFICATE OF MAILING

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

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- Information Disclosure Statement by Applicant, Form PTO/SB/08A & 08B 2. (5 pgs.)
- Return Receipt Postcard 3.

DATED this 20 day of February, 2004.

Legal Secretary

Holmes Roberts & Owen LLP 299 South Main, Suite 1800 Salt Lake City, UT 84111

(801) 521-5800